

**KING FAHD UNIVERSITY OF PETROLEUM & MINERALS**  
**DEPARTMENT OF PHYSICS**

PHYS 133 – PRINCIPLES OF PHYSICS  
First Semester 2007-2008 (072)

**Course Schedule, Syllabus and Grading Policy**

Instructor : M.A. Al-Solami

**1. COURSE DESCRIPTION (Undergraduate bulletin)**

This is a non-calculus based Physics course. Topics include particle kinematics and dynamics, work, energy and power, kinetics theory of gases, temperature, first and second law of thermodynamics, heat transfer, wave motion and sound, electricity and magnetism, light and optics.

**2. CO-REQUISITIE**

MATH 131 or MATH 101

**3. TEXTBOOK**

“PHYSICS: Principles and Applications” by Douglas C. Giancoli, 5<sup>th</sup> Edition, Prentice-Hall International, 1998.

**4. GRADING POLICY**

**(A) Course Grade:**

The course grade will be evaluated as follows:

Homeworks and quizzes	15 %
Laboratory	20 %
First Major Exam	15 %
Second Major Exam	20 %
Final Exam	30 %

**(B) Class Works:**

The class work shall comprise of quizzes, homeworks etc., and any other assignments.

**(C) Laboratory Works:**

The lab work will be based on any or a combination of the lab reports, lab quizzes, lab exam, etc. as chosen by the Lab Instructor.

**(D) Major and Final Examinations:**

Major and Final Examinations are scheduled as follows:

First Major Exam	17 March 2008	(Chapters 1-4)
Second Major Exam	30 April 2008	(Chapters 6,9,11,13 & 14)
Final Examination	7-18 June 2008	

**5. ATTENDANCE**

Attendance will be evaluated according to current university regulations. Please refer to article # 9 in the undergraduate study and examination regulation (P.17)

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Second Semester 2007-2008 (072)

Week	Date	Topics	Chapter	Section	Homework
1	16 Feb.	Introduction & Measurements	1	1-4	
	18 Feb.	Units and Standards	1	5-6	
2	20 Feb.	Reference frames, displacement and average velocity	2	1-2	
	23 Feb.	Instantaneous Velocity	2	3-4	
	25 Feb	Motion at constant acceleration	2	5	
3	27 Feb.	Freely falling objects	2	7	
	01 Mar	Problem solving			
	03 Mar.	Vectors and Scalars	3	1-2	
4	05 Mar	Adding vectors by components	3	4	
	8 March	Dynamics: Force & Newton's First Law	4	1-3	
	10 March	Newton's second law & third law	4	4-5	
5	12 March	Weight and normal force	4	6 & 8	
	15 March	Problem solving			
	<b>17 March</b>	<b>First Major Exam (Chapters 1-4)</b>			
6	19 March	Work done by a constant force	6	1 & 3	
	22 March	Potential energy	6	4-5	
	24 March	Mechanical Energy and its conservation	6	6-10	
7	26 March	Statics	9	1-2	
	29 March	Stability and balance	9	5-6	
	31 March	Problem solving (Last day for grade "W")			
8	02 April	Temperature	13	1-2	
	05 April	Thermal equilibrium	13	3-4	
	07 April	Vapor pressure	13	14	
	09 April	Heat	14	1-3	
<b>10 – 18 Mid Term Brake</b>					
9	19 April	Calorimetry	14	5-6	
	21 April	Heat transfer	14	7-9	
10	23 April	Wave	11	7-9	
	26 April	Reflection and interference	11	11-12	
	28 April	Problem solving			
	<b>30 April</b>	<b>Second Major Exam (Chapters: 5,6,9,11,13 and 14)</b>			
11	3 May	Sound waves	12	1-2	
	5 May	Source of sound	12	5	
		Interference of sound waves	12	7	
12	7 May	String and Air column	12		
	10 May	Electric Battery	18	1-2	
	13 May	Ohm's Law	18	3,4&7	
13	15 May	DC Circuit	19	1-3	
	17 May	Kirchhoff's law	19	4-6	
	19 May	Circuit containing resistor and capacitor	19	7	
	21 May	Problem solving			
14	24 May	The Ray model of light	23	1-3	
	27 May	Index of Refraction	23	4-5	
	29 May	Thin lenses	23	6-7	
15	31 May	Thin lenses Equation	23	8	
	02 June	Problem solving			
	04 June	Review			
<b>7-18 June. Final Examinations</b>					

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**PHYS 133 Lab Schedule (Term 072)**

<b>Week</b>	<b>Date</b>	<b>Experiments</b>
1.	17 Feb. 08	<b>No Lab</b>
2.	24 Feb. 08	Graphing
3.	2 Mar. 08	Uniformly accelerated motion
4.	9 Mar. 08	Freely falling body I
5.	16 Mar. 08	The Spring
6.	23 Mar. 08	<b>No Lab</b>
7.	30 Mar. 08	Collision in one dimension
8.	6 Apr. 08	Standing wave in a cylinder
9.	13 Apr. 08	Speed of sound in air
10.	20 Apr. 08	Specific Heat of a metal
11.	27 Apr. 08	<b>No Lab</b>
12.	4 May 08	Ohms Law # 1
13.	11 May 08	<b>No Lab</b>
14.	18 May 08	Lenses and mirrors
15.	25 May 08	Lab final